

3400 Forest Pest Management

May 6, 1982

Root and Butt Rots in Thinned Douglas-fir, Mt. Adams RD

Forest Supervisor, Gifford Pinchot NF

On April 27, Gregory M. Filip, Plant Pathologist from the Regional Office, visited the Mt. Adams Ranger District, Gifford Pinchot NF. Purpose of the visit was to examine a stand of Douglas-fir for incidence of root and butt decay. He was accompanied by Jim White, District Silviculturist; Steve Backlund, Small Sales Technician; and Rhonda King, Forester.

The stand examined was part of the 180-acre Eco Sale which had been marked for commercial thinning. Stand age is about 75 years old, although occasional old-growth trees were present. Most of the stand was composed of Douglas-fir with some white pine, western redcedar, and western hemlock.

In the first area they visited, thinning operations were in progress, and the stumps and butts of several logs were examined for decay. An unidentified brown-rot type of decay was found associated with wounds inflicted 30-40 years previously. Decay was confined to a cylinder of wood the size of the tree at the time of wounding. The fungus causing the decay is definitely not *Phellinus weirii*, cause of laminated root rot, but most probably is a wound-associated fungus which will not spread from tree to tree via root contacts as does *P. weirii*. Residual trees will not be affected unless serious wounds are inflicted.

The other areas they examined were part of the same sale that had not yet been thinned. Small, widely-scattered root disease pockets, consisting of one to three Douglas-firs, were found in some parts of the stand. In all cases, affected trees had windthrown while still green and exhibited typical "root-balls" and laminated decay-caused by *P. weirii*. No recent mortality or highly symptomatic trees were observed near windthrown trees, suggesting that in this situation the fungus is not very aggressive, the affected trees are somewhat resistant, or a combination of both. Because of the very scattered distribution of affected trees, we do not recommend changing the current stand prescription to account for root disease.

However, areas where root disease pockets are larger or more congregated should be marked and treated differently from the remainder of the stand. In situations where the next entry will not be for another 20 years, such as the Eco Sale, all Douglas-firs within 30 to 40 feet of visibly-affected trees should be removed to salvage current and potential mortality. Cedar, pine, and hemlock can be retained since they are less susceptible to *P. weirii*.

than Douglas-fir, with cedar being least susceptible and hemlock intermediately susceptible. Douglas-fir within 30 feet of visibly-affected trees will have decayed roots and may be windthrown if the stand is thinned. If Forest Pest Management can be of further service, please contact us.

~~PAUL E. BUFFAM~~

PAUL E. BUFFAM, Director
Forest Pest Management

cc: Ken Graves, GP SO
Jim White, Mt. Adams RD
Steve Backlund, Mt. Adams RD
Rhonda King, Mt. Adams RD

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